

PIGMENTATION BANDS ON AN EARLY DEVONIAN NAUTILOID. *Memoirs of the Queensland Museum* 37(1): 40. 1994:- A specimen of an ?orthoceratid nautiloid was collected in 1990 from the Martins Well Limestone, Broken River Province, north Queensland (QM Locality 549). The Martins Well Limestone member of the Shield Creek Formation contains a diverse fauna indicative of an Early Devonian (Lochkovian- Pragian) age (Jell et al., 1993). The specimen (QMF32208) is a 92mm long fragment of an orthoconic shell (Fig. 1) and is exposed only on the lateral parts of the shell with the dorsum and venter apparently obscured. The shell had been encrusted by an actinostromatid stromatoporoid skeleton, and the preserved shell surface represents this encrusted surface.

Upon the outer shell surface are preserved thin, light grey sinuous bands 1.8-2.0mm thick, separated by thicker dark grey bands 3.3-4.4mm thick. The pattern is restricted to the exterior shell surface, and the pigmentation does not appear in longitudinal section as sutures or septal remnants. Ribbing is discounted given that a longitudinal section revealed a thin smooth, un-ribbed shell. The pattern is thus considered as a relict surface pigmentation.

Preservation of pigmentation patterns on Palaeozoic cephalopods is rare (Foerste, 1930; Teichert, 1964). Preserva-

tion, in this case appears to have been facilitated by the early encrustation of the stromatoporoid, providing protection against crushing, and a significant buffer to destructive diagenetic processes.

Literature Cited

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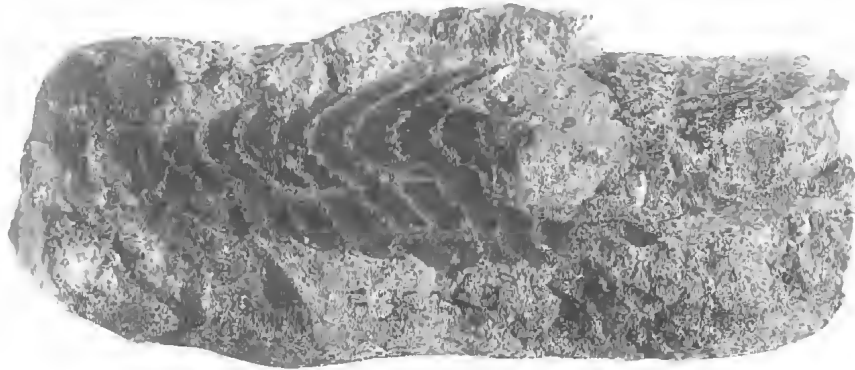


FIG. 1. QMF32208, ?orthoceratid nautiloid showing pigmentation patterns, x 1.